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Supply and Demand of Quranic Information in the Web Environment: A Decade of Infodemiology Study in Iran

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ABSTRACT

This study aimed to investigate the demand for information from Iranian users to the supply of scientific products to Iranian researchers in the field of the Quran during the years 2011-2020. The present study is a descriptive-analytical done by web research and scientometric methods using infodemiology indicators. The population included the keywords of Iranian users' search in the field of the Qur'an - using Google Trends; and in the scientometrics section, the research conducted by Iranian researchers in the area of the Qur'an - indexed in Islamic world citation databases, web of science, and Scopus during the years 2011-2020. A correlation test was performed to investigate the alignment of users 'information retrieval behavior and researchers' scientific products using R software. The number of scientific products of researchers and the index of Iranian users' search volume in the Google search engine has increased over ten years. The average growth of scientific productions of Iranian researchers in the Quranic studies was 411.40. Spearman correlation coefficient between users' information-seeking behavior and scientific products of Iranian researchers in the field of Quran in the sections of Web search (P-value = 0.001), YouTube search (P-value = 0.0001) and the sum of parts of Google search engine (P-value = 0.0001) was obtained meaningfully. Many factors affect the increasing scientific production of Iranian researchers in the Quranic fields. Information demand or Internet information retrieval behavior of users in this subject can be one of the most critical factors.

Keywords: Quran; infodemiology; information supply; information demand; Google Trends

INTRODUCTION

The Holy Quran contains basic educational knowledge that is useful in all aspects of individual and social life. It has been emphasized in several verses and hadiths. The Holy Quran also contains miraculous and undiscovered points that make this book a unique source for research by researchers in various fields. People try to use the Qur'anic themes and instructions in life issues based on their religious beliefs. Reciting and thinking about the Quran helps people to control their emotions (Ismail 2019). Given the spread of information and communication technologies in the present age, it can be said that the most widely used media that users refer to it to meet their Quranic information needs is the Internet. Nowadays, Internet has become a source for anyone to write, act, and search intentionally or unintentionally (Al-Abri 2022) as well as share ideas, thoughts, and issues that may attract the attention of many people (Amrullah, Ali & Sukimi 2019). Furthermore, Internet technology is one of the facilities that gives exposure to a person to know and connect freely and openly (Zahrin et al. 2022). The most familiar internet search tool is Google search engine, which internet users refer to meet their information needs (Brigo et al. 2014). Iranian users also use this search engine extensively. In addition to the many benefits of high speed and user-friendliness for the Google search engine, Google's popularity is largely due to the relevance of the results retrieved to

a typical query (Asadi, Zhou, & Yang 2009; Jamali & Asadi 2010). In addition, Google has the ability to constantly upgrade its existing services as well as design and launch new services (Asadi, Zhou & Yang 2009). These services include Google Trends, which was launched by Google in 2008.

Google Trends is a free online statistical portal that provides access to forms that illustrate Internet search approaches by analyzing search terms in the Google search engine and other Google-related sites; It also analyzes the search volume of a user-specific search term among all searches performed on the Google search engine. This system automatically removes biased data and provides reliable information. Also, Google Trends searches for time changes in search volume (interest over time), global changes (global search volume / geographic area / selected city), categories (entertainment, finance, health, games, Travel, Sports, Science, etc.), presented separately for different sections of Google (Web, Image, YouTube, News, Google Store) (Choi & Varian 2012). In the age of metadata, the analysis of user queries on Google has become a valuable tool for researchers to explore and predict human behavior, and the use of this tool in various studies is constantly expanding (Bernardo et al. 2013). Such research is known as infodemiology. Infodemiology, in simple terms, seeks to depict the information-seeking behavior of users and, consequently, the information needs of the community, as well as the information provided in the selected subject areas, by observing the scientific products of researchers as well as the frequency of public searches on the web. Attention to this issue gives rise to two complementary areas: First, demand-based infodemiology, which seeks to address users' information-seeking approaches in the digital space. Second, supply-based infodemiology, in which the scientific output of researchers on the web is considered (Seyyed Hosseini et al. 2018). In the first case, the Google search engine, which is much more likely to be referred to and noticed by general users to search for information, was studied in the form of the Google Trends database. In the second case, for the sake of comprehensiveness of the research, citation databases of the Islamic world, Web of Science, and Scopus were considered in order to observe the scientific productions of Iranian researchers in the Quran.

Regarding this issue, the present study has investigated the information-seeking behavior of users and the scientific products of Iranian researchers in the field of the Quran. The findings can provide a roadmap for the supply and demand of information on the Quranic issues in Iran. In fact, by observing the scientific products of researchers and the prevailing approaches in informing the general users of the web space about the Qur'an, a more detailed analysis can be provided regarding the degree of alignment or non-alignment of supply and demand of information related to this field. This issue makes it possible for programmers in this field to draw a more realistic view of the situation of scientific productions in the field of Quranic topics and on the other hand, be able to make the research conducted in this field more logical by recognizing the prevailing approaches among users.

LITERATURE REVIEW

The beginning of research in the field of user information behavior through Google Trends abroad can be considered in 2009, because Google Trends was first introduced in 2008 by Google. The research conducted using Google Trends was initially conducted to evaluate the prediction of the prevalence of diseases in the community and conduct extensive surveys for various diseases in other countries, as well as mapping the Internet information behavior of users and estimating their information needs using Google Trends (Pelat et al. 2009; Otte et al. 2013; Kuehn 2013; Willard & Nguyen 2013; Brigo et al. 2014; Ayers et al. 2014; Van Cempen et al. 2014). Some researchers have examined the role of celebrities in the sensitivity of people to an issue and consequently increase the frequency of users' searches for it (Ayers et al. 2014; Brigo et al. 2014). In addition, some researchers believe that the use of different social networks improves and increases the queries of different people in Google (DeVilbiss & Lee 2014), while others believe in the impact of the role of news media and information sources in this area (Dehkordy et al. 2014; Hai-feng, Chan-na & Dong-qing 2019; Higgins et al. 2020; Walker & Sulyok 2020; Park, Park & Chong 2020).

In the field of scientific productions of Quranic researchers, various researches have been done in domestic or international level (Sharafi, Momeni & Ebrahimi 2016, Khosravi et al. 2016). However, few studies have examined the alignment of supply and demand in the field of infodemiology (Seyyed Hosseini et al. 2017; Seyyed Hosseini et al. 2018; Seyyed Hosseini & BasirianJahromi 2021). It can be deduced from the review of the background that until now, no research has been done in the field of examining the alignment of supply and demand of

Quranic topics. Therefore, the present study intends to examine the degree of alignment of the Internet information retrieval behavior of Iranian users (as a group of people in the community) in the GoogleTrend database with the scientific products of Iranian researchers (as the scientific elite of society) in the thematic range of the Qur'an. Codified to provide policy makers in the field of science in the country. In this way, policymakers can design more effective guidelines and strategies to meet the real needs of society and also to direct the scientific products of researchers in the field of Quranic topics.

RESEARCH QUESTIONS

1. What is the behavior of Internet information retrieval of Iranian users from the perspective of requesting Quranic information in Google Trends database during the years 2011-2020?
2. What is the distribution of scientific products of Irania
3. n researchers from the perspective of Quranic information in Islamic world citation databases, Web of Science, and Scopus during the years 2011-2020 based on the production index?
4. To what extent is the compatibility or adaptation of Iranian Internet search behavior of Iranian users in Google Trends in the thematic range of Quranic topics with the scientific products of researchers in these fields in Islamic world citation databases, Web of Science, and Scopus during 2011-2020?

METHODOLOGY

The present research is a quantitative descriptive-analytical study that has been done by scientometric and web-analytical methods using the indicators proposed in infodemiology. Considering the importance of Quran and Quran research in Iran and the investments made in attracting people to understand the Quran and applying Quranic instructions in Iran, the research community searches Iranian users in Google search engine and researchers' scientific products. In this context, the search volume index of Iranian users in the field of Quran and also the scientific products of Iranian researchers in this field from the beginning of April 2011 to the end of March 2020 (a period of ten years) were investigated.

Data related to users' search volume index in the field of Quran and related keywords were extracted in Google search engine through Google Trends. Google search engine was chosen because based on previous studies. This search engine contains useful information for obtaining general and Islamic information and has a better performance in terms of quality criteria than other search engines. Reasons for the superiority of this search engine over other search engines can be attributed to the long history of this search engine, the use of better and more efficient search algorithms, wider coverage, the use of better peripherals and attractive user interface (Morvarid, Behzadi & Radad 2016; Strzelecki 2019). Therefore, it can be said that most users first refer to Google search engine to get their information. In this phase, at first, by searching method and using the useful keywords of ordinary users in order to search for information in the field of Quran, the search volume index obtained from searches of all terms related to Quran is added together. Iranian was drawn using Google Trends. For this purpose, users' search volume index was obtained in the sections of Web Google Search, Image Search, News Search, Google Shopping and YouTube Search. In order to retrieve users' searches in the field of Quran, different written forms of the Quran keyword in Persian, English and Arabic languages were considered. Accordingly, the keywords (qoran + quran + koran + kuran + qor'an + qur'an + kor'an + kur'an + surah + sura + Juz '+ Quran + Sura + verse + قرآن + سوره (آیه + جزء + القرآن + in consultation with a Quranic expert were chosen.

In the section of reviewing the scientific productions of researchers in the field of Quran, scientometric method and production index were used. Using the production index of the number of articles of Iranian researchers in the field of Quran that have been published in domestic and foreign scientific journals in Persian, English and Arabic and their bibliographic information in the Islamic World citation database - because of the role and importance of these databases in Iran in reflecting research Authentic - Web of Science and Scopus are indexed by researchers in various fields due to their importance. They were extracted during a ten-year period. To accomplish this pupose, among the articles indexed in the Islamic World citation database, articles in the titles, abstracts and their keywords are one of the keywords (qoran, quran, koran, kuran, qor'an, qur'an, kor'an, kur 'an, surah, sura, Juz', Quran, Sura, verse, part, Qur'an, Sura, verse) were considered (2010 article). Also search strategy (qoran OR quran OR koran OR kuran OR qor'an OR qur'an OR kor'an OR kur'an OR surah OR sura OR Juz ') in the title, abstract, and keyword fields in the "Scopus" database

and field The theme was used on Web of Science. After that, the results of "Scopus" and "Web of Science" databases were limited from April 2012 to March 2021 and Iran. In order to delete duplicate articles in these two databases, the search output in each database was entered into the Endnot software and the duplicate discard section was activated. Accordingly, 347 articles were retrieved from Scopus and 312 articles were retrieved from Web of Science, and 557 articles were obtained after removing duplicate articles (106 items). Therefore, in the scientometrics section of the articles of Iranian researchers in the field of Quran (2010 article indexed in the Islamic world citation database and 553 articles indexed in "Scopus" and "Web of Science" databases were extracted. Abstracts of all articles were read.

Finally, in the last step, in order to analyze the alignment of Iranian users 'Internet information behavior (users' searches in the field of Quran) with the scientific products of Iranian researchers in this field, R software was used. Kolmogorov–Smirnov test was performed before measuring the correlation between Internet information retrieval behavior of Iranian users (searches performed by users in terms of web search, image search, news search, Google store, and YouTube search with the scientific output of Iranian researchers in this field. Due to the non-normality of the data, Spearman correlation test was used.

FINDINGS

BEHAVIOR OF INTERNET INFORMATION RETRIEVAL OF IRANIAN USERS FROM THE PERSPECTIVE OF REQUESTING INFORMATION IN THE FIELD OF QURAN

Keywords entered in Google Trends; The analyzes provided for the keywords extracted in the sections Web Search, Image Search, News Search, Google Store, and YouTube Search are plotted in the charts below. It should be noted that the search volume index is not the frequency or number of searches of individuals, but is obtained through two steps: First, the shared query is calculated by dividing the total volume of queries for each search keyword by the total volume of queries for all search keywords. The shared query index is then optimized (Ahluwalia 2012).

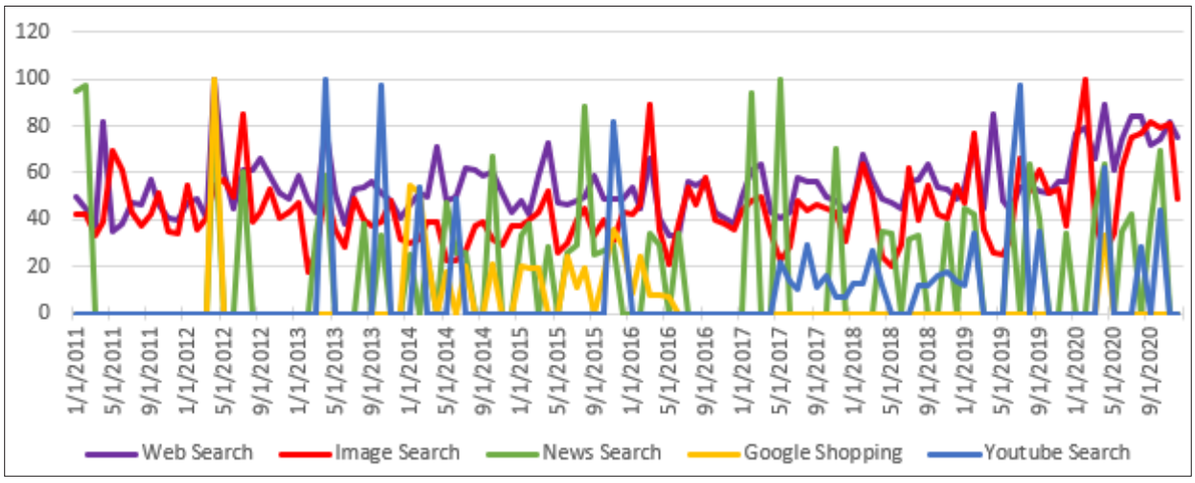

FIGURE 1. Search volume index of keywords extracted in the field of Quran by Google search sections

According to Figure 1, the findings show that most users in the web search section of Google search engine in the Quranic fields have done their search (with a total of 6558 search volume indicators). It is followed by image search (with a total of 5324 search volume indexes), news search (with a total of 2134 search volume indexes), search on YouTube posts (with a total of 1043 search volume indexes), and Google Store (with a total of 572 volume indexes) Search) are in the next ranks. Also, in general, during the years 2011 to 2020, the average search volume index of Quranic keywords (despite the fluctuations it has had in different years) in the sections of web search, images, news, and YouTube posts increased, while for the Google store section decreased had. The peak of Google web search volume index was reached in July 2011. In addition, the peak of the image search volume index in May 2020, news search in August 2017, Google Store in July 2011, and for YouTube search in July 2013.

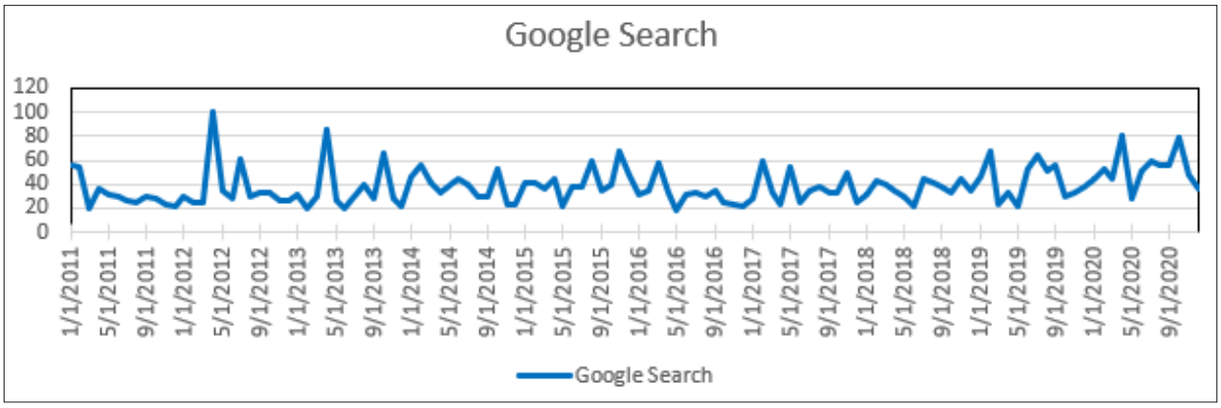

FIGURE 2. Average search volume index of keywords extracted in the field of Quran in Google search engine

According to Figure 2, the search volume index of users in all sections of Google search engine during the years 2011 to 2020 fluctuated a lot, but in general, the average search volume index of Quranic keywords in the total Google search sections indicates an increase in user search volume in this search engine during The years 2011 to 2020. Also, according to the findings of Google Trends for keywords in the Quranic field, the peak volume index of users in the Google search engine in July 2012 (with a search volume index of 100). After that, the peak of users' search volume index in Google search engine is in July 2020 (with 85 search volume index) and July 2013 (with 83 search volume index), respectively.

Also, in general, in comparison with different months during the years 2011 to 2020, the summer months show the volume of users 'search index compared to other seasons shows the higher frequency of users' searches.

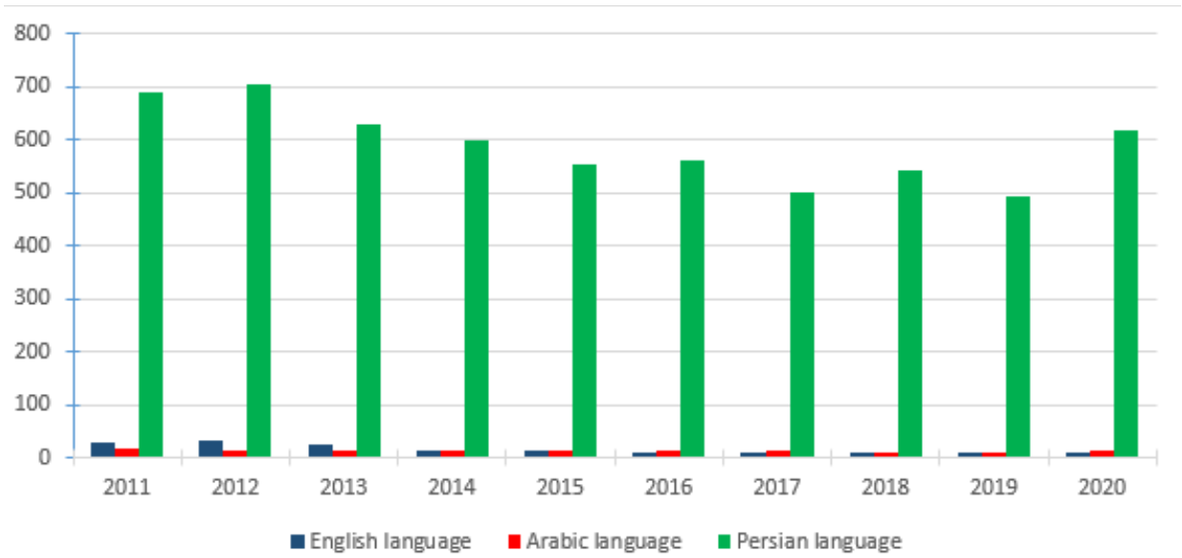

FIGURE 3. Comparison of search volume index of keywords extracted in the field of Quran by language

According to Figure 3, the search volume index of Quranic keywords in Persian with a frequency of 6268 is higher than the search volume index of Quranic keywords in Arabic and English. Among these, the English keyword search volume index with a frequency of 162 is in second place.

GEOGRAPHICAL DISTRIBUTION OF QURANIC USERS' SEARCHES IN GOOGLE SEARCH ENGINE

The geographical distribution of Quranic users' searches in the Google search engine based on information obtained through Google Trends is shown in Table 1.

TABLE 1. Geographical distribution of Quranic users' searches in Google search engine by province

	Region	Percentage of users searching in the field of Quran		Region	Percentage of users searching in the field of Quran		Region	Percentage of users searching in the field of Quran
1	Qom	100	12	Kurdistan	55	23	West Azerbaijan	50
2	South Khorasan	75	13	Zanjan	55	24	Bushehr	50
3	Yazd	64	14	Isfahan	55	25	North Khorasan	49
4	Semnan	64	15	Golestan	55	26	Tehran	48
5	Markazi	60	16	Kermanshah	55	27	East Azerbaijan	48
6	Ilam	59	17	Khorasan Razavi	55	28	Kohgiluyeh Va Boyer Ahmad	47
7	Sistan and Baluchestan	58	18	Kerman	53	29	Mazandaran	45
8	Hamadan	58	19	Fars	53	30	Alborz	45
9	Chaharmahal and Bakhtiari	58	20	Ardabil	52	31	Gilan	40
10	Lorestan	57	21	Khuzestan	52			
11	Qazvin	55	22	Hormozgan	51			

According to Table 1, the highest index of Quranic keyword search volume is in Qom province (100%); After that, South Khorasan province is in the second place with 75% and Yazd and Semnan provinces are in the third place with 64%. Also, the lowest index of Quranic keyword search volume is related to Gilan province (40%). After Gilan, Alborz and Mazandaran provinces are with 45%, respectively.

DISTRIBUTION OF SCIENTIFIC PRODUCTS OF IRANIAN RESEARCHERS FROM THE PERSPECTIVE OF PROVIDING INFORMATION IN THE FIELD OF QURAN

The results of a review of Iranian researchers' articles on the Qur'an published in journals indexed in Islamic World citation databases, Web of Science, and Scopus are shown in Table 2.

TABLE 2. Scientific productions of Iranian researchers in the field of Quran

	Year	Article of Web of Sience & Scopus	Article of ISC	Sum	Sum (2011-2019)	Mean	Standard deviation
1	2011	26	168	194	4114	411.40	139/93
2	2012	46	225	271			
3	2013	65	242	307			
4	2014	50	298	348			
5	2015	77	319	396			
6	2016	63	335	398			
7	2017	69	398	467			
8	2018	53	454	507			
9	2019	52	575	627			
10	2020	52	547	599			

According to Table 2, the highest number of scientific articles of Iranian researchers in the field of Quran with 627 articles is related to the year 2019; After that, there are 599 articles in 2020, and 507 articles in 2018, respectively. The lowest number of scientific articles of Iranian researchers in the field of Quran is related to the year 2011 with 194 articles. Also, the average growth of scientific production of Iranian researchers in the field of Quran in this ten-year period (from April 1, 2011 to March 2016 was 411.40).

The Relationship between Internet User Behavior of Iranian Users in Google Trends Database with Scientific Productions of Iranian Researchers in Islamic World Citation Databases, Web of Science, and Scopus.

TABLE 3. Correlation between users' information-seeking behavior and scientific products of Iranian researchers in the field of Quran

Scale	P	R
User searches in Web Search and scientific products of Iranian researchers in the field of Quran	0.001	**0.30
User searches in Image Search and scientific products of Iranian researchers in the field of Quran	0.07	0.16
User searches in News Search and scientific products of Iranian researchers in the field of Quran	0.06	0.17
User searches in Google Shoopping and scientific products of Iranian researchers in the field of Quran	0.33	-0.09
User searches on YouTube Search and scientific products of Iranian researchers in the field of Quran	0.0001	**0.37
Information retrieval behavior of users in Google and scientific products of Iranian researchers in the field of Quran	0.0001	**0.32

** Correlation at the significance level of 0.01

In order to measure the correlation between users' information-seeking behavior and scientific products of Iranian researchers in the field of Quran, first Kolmogorov-Smirnov was performed. Based on this test, the level of significance of the test was less than 0.05, then the distribution of variable values under study was not normal. Due to the non-normality of the data, non-parametric analysis (Spearman correlation coefficient) was used to investigate the cross-correlation.

According to the data in Table 3, Spearman correlation coefficient between Iranian users' information retrieval behavior in Google Trends and scientific products of Iranian researchers indexed in Islamic world citation databases, Web of Science, and Scopus in the field of Quran in Web search sections (P value = 0.001), search YouTube (P value = 0.0001) and all parts of Google search engine (P value = 0.0001) are direct and meaningful. Spearman correlation coefficient between the information-seeking behavior of Iranian users in other sections of Google search with the scientific products of Iranian researchers indexed in the Islamic World Citation Database, Web of Science, and Scopus in the field of Quran was not significant (P value> 0.005).

DISCUSSION

The common languages of Iranian users are Persian, English and Arabic. Furthermore, Iranian users use these three languages in order to meet the Quranic information needs in the Google search engine. Based on this, various keywords that were retrieved in these three languages by Iranian users in order to search for Quranic information and meet the information needs in the field of Quran. Keywords (qoran + quran + koran + kuran + qor'an + qur'an + kor'an + kur'an + surah + sura + Juz'+ Quran + Sura + verse + + قرآن + سوره + آیه + جزء + القرآن), are the preferred, common and widely used keywords among the masses, which were considered by consulting to several Quranic experts to search in Google Trends. Based on information

science point of view, each of these keywords can be considered as approaches that have the ability to meet the information needs of users - or at least part of these needs. These resulting keywords were entered once together and once again by language in Google Trends and provided significant statistics in terms of search volume index. In the time periods when the keyword search volume index reached zero, this index was probably lower than what Google Trends calculated compared to other time periods. Users' search volume index was examined by different sections of Google search, including web search, image search, news search, Google Store, and YouTube search. The sum of users' search volume index by different sections of Google search engine showed that more users in the web search section in the Quranic fields have done their search. After that, users searched for images, news, YouTube posts, and the Google Store, respectively. This may be due to the fact that Google Web Search is a global search interface where all types of results are published on one page; These results include: text, map, image, video, store, financial topics, books, news, sponsored links, charts, and more. Therefore, this section overlaps with other sections of Google search. If the other sections each cover a specific area of activity. Image search, for example, is a specialized part of Google search that only displays images as search results (Strzelecki 2019). The Google Store is an integrated Google search service that acts as an intermediary between companies, offering products on the Internet, and people searching for products on the Internet (Von Blankenburg 2018). The news section contains news published on Google, and YouTube Search also searches for users' posts on YouTube.

The results of Google Trends showed that during the years 2011 to 2020, the average search volume index of Quranic keywords increased generally despite the various fluctuations in different months of the year in the sections of web search, images, news, and YouTube posts, while it has decreased in the Google Store section. Due to the increase in the volume of Iranian users searching for the Quran in the sections of web search, images, news, YouTube posts, it can be concluded that in this period of time, the sensitivity of the masses to Quranic news and YouTube posts in the field of Quran has increased. Many factors such as the maturity of the Internet and the establishment of Internet use among the general public, increasing the penetration of the Internet in the country in cities and villages, the availability of platforms such as mobile phones to search the Internet, the activation of Internet news agencies in the field Quran and consequently increase the desire of users to browse the daily news using the Internet, increase the popularity of users of social networks such as YouTube and the increasing use of these networks by users in this time period. Reducing the frequency of users searching in the Google Store section may indicate less attention of users to the trade and exchange of Quranic resources such as the supply, purchase and sale of Quranic software and programs.

The total number of user searches in all areas of Google search engine has also increased. This indicates an increase in the information needs of users in the field of Quranic topics and, consequently, an increase in their desire to obtain information in the field of Quran. In this regard, previous research has confirmed that GoogleTrends data has the ability to depict the information-seeking behavior of users and the information needs of the community at different time intervals. In fact, the tendency to search for people in specific fields indicates their information needs in that field (Plott et al. 2009; Otte et al. 2013; Cohen 2013; Willard & Engine 2013; Brigo et al. 2014; Ayers et al. 2014, Van Kempen et al. 2014).

The peak of image search volume index was obtained in May 2020. Also, the image search volume index in different years shows the increase in image search by users in May of different years. One of the reasons for this is the celebration of Teacher's Day in this month and, consequently, the search for images related to this occasion by Iranian users. The peak of news search volume index in Google was obtained in August 2017. Exactly on August 25, 2017, the news of the death of Professor Mohammad Abdul Wahab Tantawi, a prominent Egyptian reciter, was published in all domestic news agencies; This incident can be considered as the most important reason for the increase in users' searches in August 2017. Previous studies on the role of celebrities and prominent people in the occurrence of people's sensitivity to an issue and consequently increase the frequency of users' searches after it (Brigo et al. 2014; Ayers et al. 2014). Also, the peak of YouTube search volume index in July 2013 was. One of the most important reasons for Iranian users to search Google for YouTube is perhaps the news published in Tasnim News Agency in July 2013 about the "strange reception of thousands of Muslims and non-Muslims for the video of an Iranian reciter reciting on YouTube." The role of national and public media, television reports, and the like in increasing public excitement about topics has already been proven in research (Dehkordi et al. 2014; Doylebis

& Lee 2014; Ha-Feng, Chan-na & Dong-King 2019; Higgins et al. 2020; Walker & Soliak 2020; Park, Park, & Chong 2020).

The peak of Iranian users' search volume index in Google search engine in Google web sections, Google store and total Google search sections was obtained in July 2012; After that, the peak of users' search volume index in the total sections of Google search engine was obtained in July 2020 and July 2013, respectively. In general, during the summer months, the user search volume index in this 10-year period was more frequent than other seasons. Perhaps the increase in user volume index in the summer months in this 10-year period can be attributed to the beginning of various Quranic camps for students and the beginning of summer projects with the Holy Quran in the national media on various radio and television networks in the summer.

The search volume index of Quranic keywords in Persian is higher than the search volume index of Quranic keywords in Arabic and English. Among these, the English keyword search volume index is in second place. One of the reasons for this is that most Iranians speak Persian. Qom province also had the highest number of Quranic keyword searches in Iran; After that, South Khorasan province is in the second place and Yazd and Semnan provinces are in the third place, respectively. The lowest frequency of Quranic keyword searches is related to Gilan, Alborz and Mazandaran provinces. This can be related to the religious and traditional context of these provinces.

Articles and works of Iranian scholars in the field of Quran published in journals indexed in Islamic world citation databases, Web of Science, and Scopus during the period from April 2011 to March 2016 have been increasing despite fluctuations in some months. Previously, various researches on Quranic scientific productions at domestic or international level have also confirmed the increase of scientific productions in the field of Quran over different time periods (Sharafi, Momeni & Ebrahimi 2020, Khosravi et al. 2020). One of the reasons for the upward trend in the publication of scientific products of researchers in the field of Quran may be the attention of Iranian researchers to this field in the relevant years and the investment of Iran in the field of scientific productions in the field of Quran.

In the present study, the highest number of scientific articles of Iranian researchers in the field of Quran is related to the year 2019, and the lowest is related to the year 2011. Also, according to the findings, the average growth of Iranian scientific production in the field of Quran during the period April 2011 to March 2016 indicates that researchers in this field have published approximately 411.40 articles per year during this period.

Finally, the analysis of the results showed that there is a direct relationship between the information-seeking behavior of Iranian users in Google Trends and the scientific products of Iranian researchers in Islamic world citation databases, Web of Science, and Scopus in the field of Quran in the web and YouTube search and generally in all parts Google search engines; Therefore, with the increase of the index of users' search volume in the field of Quran in web search, YouTube and the sum of sections of Google search engine, the quantity of scientific products of Iranian researchers in this subject area has also increased. Therefore, it can be said that Iranian researchers, along with the interest of users, have conducted extensive research in order to meet the information needs of users in the field of the Qur'an and to align with the interest of users in this field; The increase in the number of articles by Iranian researchers during these ten years is proof of this claim. In fact, many factors affect the level of scientific production of Iranian researchers in the field of Quran. Considering the proven positive relationship and the existence of an interaction between the variables of users' information-seeking behavior and researchers' scientific products, users' information demand or their Internet information-seeking behavior in this subject can be one of the most important factors (Seyyed Hosseini et al. 2017; Seyyed Hosseini et al. 2018; SeyedHosseini & Basirian Jahromi 2021).

CONCLUSION

Nowadays, by using infodemiology metrics and consequently recognizing the needs of the information society, it is better for researchers to take more principled steps in selecting their research areas in order to act in accordance with the needs of society. By obtaining a better knowledge of the concerns and sensitivities of society, researchers will be able to understand the information needs of their society better, and more effective steps may be taken in this context. Also, the main concern of scientific progress is the information needs of society, and the ability of infodemiology metrics to assess the real information needs of society has paved the way for researchers to understand the information needs of society; Therefore, with the help of infodemiology tools such as Google Trends, researchers will be

able to more easily identify the real information needs of their information community; As the results of the present study showed based on increase in users 'search in the field of Quranic topics, it can be said that the information need of users in the field of Quranic topics is increasing and Iranian users' attention to Quranic topics has increased over time. Therefore, to make correct and logical policies for increasing the scientific output of the Qur'an in line with the information needs of society, it is suggested that Iranian researchers, through conducting such research, identify the information needs of society in more specific topics and topics in the Qur'anic fields and conduct more research in these fields. Also, by sharing their research on personal social networks, they should try to raise public awareness in these areas in order to make an effective contribution to meeting the information needs of users. Researchers in other fields, by understanding the conditions governing the process of scientific production of researchers as well as Internet search approaches of users in their subject area, to adopt similar policies to form the alignment of supply and demand of health information in their fields.

In addition to the above, monitoring public conversations and fast-moving media news can help address users' information needs and attract them to Quranic topics. Iranian researchers can also help by knowing the Quranic topics that most users are looking for and conducting more research in these areas. Broadcasting and domestic news agencies can also be effective as a potential intervention to attract more audiences to Quranic topics by introducing Quranic topics and discussions, conducting research in their field, and conducting public information in this field.

RESEARCH LIMITATION

It is obvious that research in the field of information epidemiology has been biased in intrinsic. Search volume indexes provided by Google Trends estimate the relative changes in access.

AUTHORS' CONTRIBUTIONS

Conceptualization, Shohreh Seyyed Hosseini; methodology, Shohreh Seyyed Hosseini, and Reza BasirianJahromi; software, Shohreh Seyyed Hosseini; validation, Shohreh Seyyed Hosseini, and Reza BasirianJahromi; formal analysis, Shohreh Seyyed Hosseini; investigation, Zahra Alirezaei; resources, Reza BasirianJahromi; data curation, Reza BasirianJahromi, and Zahra Alirezaei; writing—original draft preparation, Shohreh Seyyed Hosseini; writing—review and editing, Zahra Alirezaei, and Reza BasirianJahromi; visualization, Shohreh Seyyed Hosseini; supervision, Reza BasirianJahromi; project administration, Shohreh Seyyed Hosseini. All authors have read and agreed to the published version of the manuscript.

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